

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

| | | |
|-----------------------------|------------------------------------|---------------|
| Lake: FULLAM POND | Lake Area (ha): | 10.24 |
| Town: CHESTERFIELD | Maximum depth (m): | 3.0 |
| County: Cheshire | Mean depth (m): | 1.3 |
| River Basin: Connecticut | Volume (m ³): | 129500 |
| Latitude: 42°51'15" N | Relative depth: | 0.8 |
| Longitude: 72°25'45" W | Shore configuration: | 2.29 |
| Elevation (ft): 677 | Areal water load (m/yr): | 81.72 |
| Shore length (m): 2600 | Flushing rate (yr ⁻¹): | 64.70 |
| Watershed area (ha): 1733.2 | P retention coeff.: | 0.26 |
| % watershed ponded: 0.7 | Lake type: | natural w/dam |

BIOLOGICAL:

| | 1 February 1989 | 1 September 1988 |
|------------------------------------|----------------------|----------------------|
| DOM. PHYTOPLANKTON (% TOTAL) #1 | SPARSE - NO DOMINANT | GONYOSTOMUM(?) 95% |
| #2 | | |
| #3 | | |
| PHYTOPLANKTON ABUNDANCE (cells/mL) | | 25.0 |
| CHLOROPHYLL-A (µg/L) | | 143.80 |
| DOM. ZOOPLANKTON (% TOTAL) #1 | SPARSE - NO DOMINANT | SPARSE - NO DOMINANT |
| #2 | | |
| #3 | | |
| ROTIFERS/LITER | 0 | 2 |
| MICROCRUSTACEA/LITER | 1 | 9 |
| ZOOPLANKTON ABUNDANCE (#/L) | 1 | 11 |
| VASCULAR PLANT ABUNDANCE | | Scattered |
| SECCHI DISK TRANSPARENCY (m) | | 1.2 |
| BOTTOM DISSOLVED OXYGEN (mg/L) | 6.2 | 3.7 |
| BACTERIA (fecal col.. #/100 ml) #1 | | |
| #2 | | |
| #3 | | |

SUMMER THERMAL STRATIFICATION:

weakly stratified

Depth of thermocline (m): None
Hypolimnion volume (m³): None

CHEMICAL:Lake: FULLAM POND
Town: CHESTERFIELD

| | 1 February 1989 | | 1 September 1988 | | |
|-------------------------------|-----------------|--------|------------------|--|--------|
| DEPTH (m) | 1.0 | 2.0 | 1.0 | | 2.0 |
| pH (units) | 5.9 | 5.8 | 6.1 | | 5.9 |
| A.N.C. (Alkalinity) | 4.8 | 4.3 | 4.1 | | 3.1 |
| NITRATE NITROGEN | < 0.05 | < 0.05 | < 0.05 | | < 0.05 |
| TOTAL KJELDAHL NITROGEN | 0.16 | 0.18 | 1.36 | | 0.77 |
| TOTAL PHOSPHORUS | 0.016 | 0.017 | 0.121 | | 0.035 |
| CONDUCTIVITY (μ mhos/cm) | 36.9 | 34.8 | 24.3 | | 23.8 |
| APPARENT COLOR (cpu) | 38 | 38 | 130 | | 120 |
| MAGNESIUM | | | 0.54 | | |
| CALCIUM | | | 2.2 | | |
| SODIUM | | | 1.4 | | |
| POTASSIUM | | | 0.80 | | |
| CHLORIDE | < 2 | < 2 | < 2 | | < 2 |
| SULFATE | 7 | 7 | 3 | | 4 |
| TN : TP | 10 | 11 | 11 | | 22 |
| CALCITE SATURATION INDEX | | | 4.2 | | |

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1988

D.O. S.D. PLANT CHL TOTAL CLASS

| | | | | | |
|----|---|---|---|----|--------|
| ** | 4 | 1 | 6 | 11 | Eutro. |
|----|---|---|---|----|--------|

COMMENTS:

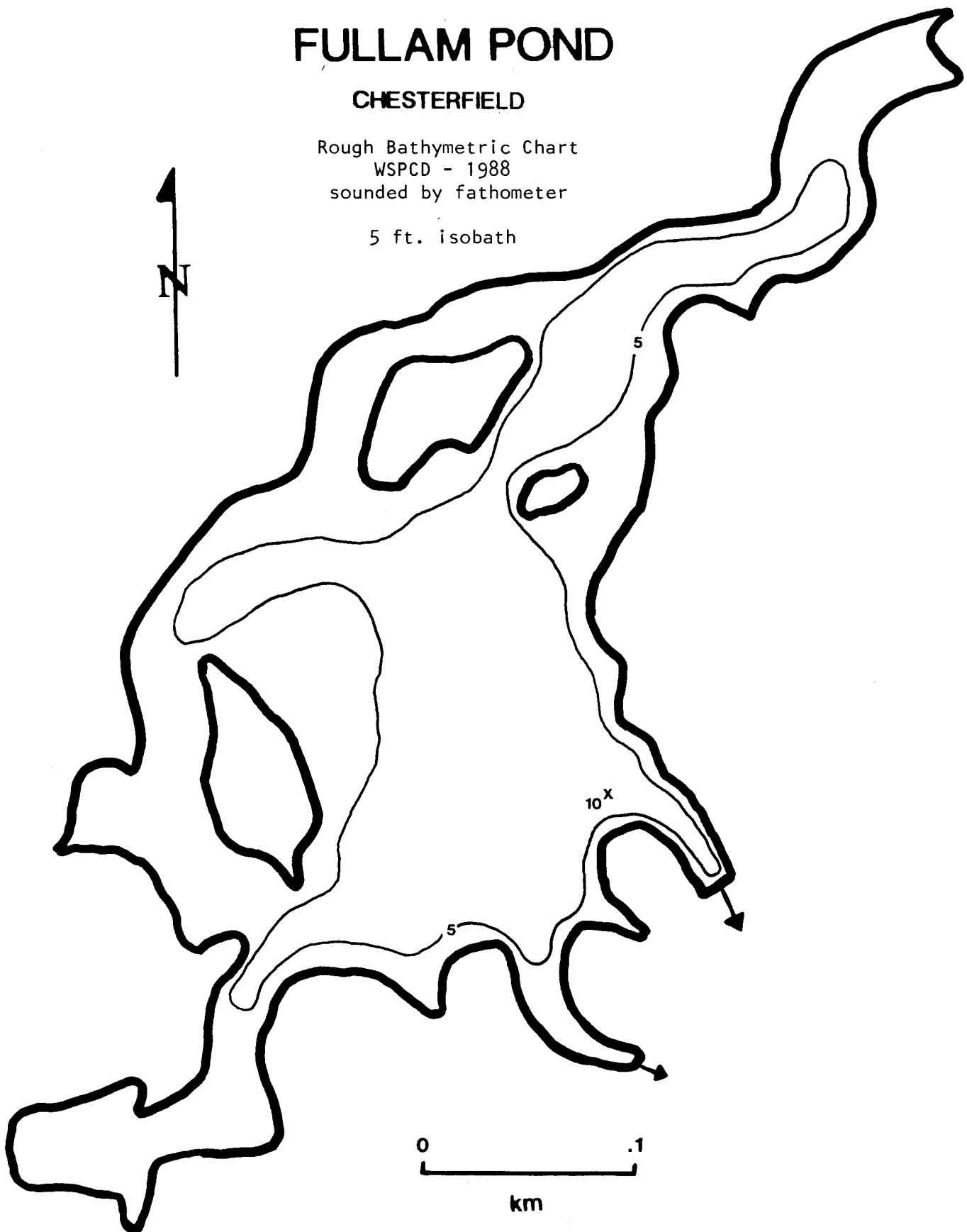
1. Pond is located within Pisgah State Park.
2. No boat launch site was present.
3. Pond was drained the previous year for dam repair or replacement. Survey conditions during the first year of re-flooding may be atypical.
4. Hydrogen sulfide odors were very evident at the outlet in both summer and winter.
5. An extremely high chlorophyll-a value was present during the summer sampling, but both net and whole-water phytoplankton were sparse. Green ciliated protozoans were very abundant.
6. Whole-water phytoplankton were very sparse with no dominants.

FULLAM POND

CHESTERFIELD

Rough Bathymetric Chart
WSPCD - 1988
sounded by fathometer

5 ft. isobath



FIELD DATA SHEET

| | |
|-------------------|----------------------|
| LAKE: FULLAM POND | TOWN: CHESTERFIELD |
| DATE: 09/01/88 | WEATHER: SUNNY, WARM |

| | |
|-------------------|----------------------|
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[illegible]

```
SECCHI DISK (m):    1.2           COMMENTS:
BOTTOM DEPTH (m):   2.5
TIME: 1400

*Dissolved oxygen values are in mg/L
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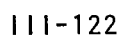
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AQUATIC PLANTS
1 SEP. 1988



[illegible]